

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An image processing apparatus for performing image processing on captured data of an image of a desired subject, comprising:
 - an image processing part; and
 - a storage unit provided outside said image processing part and connected to said image processing part by a bus, said image processing part including:
 - a buffer memory for data storage;
 - an image processing unit for performing a predetermined process on said captured data to obtain image data, and writing said image data to said buffer memory; and
 - a compression unit for compressing said image data read from said buffer memory and outputting compressed image data to said storage unit, wherein an input of said buffer memory is connected, separate from said bus, only to said image processing unit to receive only said image data from said image processing unit, and an output said buffer memory is connected, separate from said bus, only to said compression unit to output said image data only to said compression unit,
wherein said compression unit is connected to said bus and outputs said compressed image data directly to said storage unit via said bus.

2. (Original) The image processing apparatus according to claim 1, wherein said buffer memory includes a first buffer memory and a second buffer memory,
 - said image processing apparatus further comprising:
 - a control unit being operative in such a manner that while said image processing unit writes said image data either to said first buffer memory or to said second buffer memory,

said compression unit selectively reads image data previously stored either in said first buffer memory or in said second buffer memory experiencing no writing of said image data by said image processing unit.

3. (Withdrawn) The image processing apparatus according to claim 1, wherein said buffer memory includes two buffer memories, said image processing apparatus further comprising: a control unit for reading and writing said image data using said two buffer memories as one continuous buffer memory, wherein after said image data in predetermined amount is written to said continuous buffer memory, said image processing unit suspends writing until receipt of a control signal, and wherein after said image data is read from said continuous buffer memory, said compression unit sends said control signal to said image processing unit.

4. (Withdrawn) The image processing apparatus according to claim 1, further comprising:

an image display processing unit for converting said image data into data for image display, said image data being written to said buffer memory by said image processing unit, whereby said data for image display is reproduced on a display device.

5. (Withdrawn) The image processing apparatus according to claim 4, wherein said buffer memory includes a first buffer memory and a second buffer memory, said image processing apparatus further comprising:

a control unit being operative in such a manner that while said image processing unit writes said image data either to said first buffer memory or to said second buffer memory, said image display processing unit selectively reads image data previously stored either in said first buffer memory or in said second buffer memory experiencing no writing of said image data by said image processing unit.

6. (Withdrawn) The image processing apparatus according to claim 4, wherein said buffer memory includes two buffer memories, said image processing apparatus further comprising: a control unit for reading and writing said image data using said two buffer memories as one continuous buffer memory,

wherein after said image data in predetermined amount is written to said continuous buffer memory, said image processing unit suspends writing until receipt of a control signal, and

wherein after said image data is read from said continuous buffer memory, said image display processing unit sends said control signal to said image processing unit.

7. (Withdrawn) The image processing apparatus according to claim 4, wherein said buffer memory includes a first buffer memory and a second buffer memory, and

wherein said image processing unit includes: an output unit for performing a predetermined process on said captured data, and outputting the processed captured data as data for image display, said image processing apparatus further comprising:

a control unit being operative in such a manner that while said image processing unit writes said data for image display either to said first buffer memory or to said second buffer memory, said image display processing unit selectively reads data for image display previously stored either in said first buffer memory or in said second buffer memory experiencing no writing of said image data by said image processing unit.

8. (Withdrawn) The image processing apparatus according to claim 4, wherein said buffer memory includes two buffer memories, and wherein said image processing unit includes an output unit for performing a predetermined process on said captured data, and outputting the processed captured data as data for image display,
said image processing apparatus further comprising:
a control unit for reading and writing said image data using said two buffer memories as one continuous buffer memory,
wherein after said data for image display in predetermined amount is written to said continuous buffer memory, said image processing unit suspends writing until receipt of a control signal, and
wherein after said data for image display is read from said continuous buffer memory, said image display processing unit sends said control signal to said image processing unit.

9. (Withdrawn) The image processing apparatus according to claim 1, further comprising:
an image display processing unit for converting said image data into data for image display, said image data being written to said buffer memory by said image processing unit, whereby said data for image display is reproduced on an electronic viewfinder.

10-12. (Canceled)

13. (Previously Presented) The image processing apparatus according to claim 1, comprising:

a first switching unit connected between said image processing unit and said buffer memory; and

a second switching unit connected between said compression unit and said buffer memory.

14. (Previously Presented) The image processing apparatus according to claim 13, wherein said buffer memory comprises first and second buffer memories connected in parallel.

15. (Currently Amended) An image processing apparatus for performing image processing on captured data of an image of a desired subject, comprising:

an image processing part; and

a storage unit provided outside said image processing part and connected to said image processing part by a bus,

said image processing part including:

first and second buffer memories connected in parallel for data storage;

an image processing unit for performing a predetermined process on said captured data to obtain image data, and alternately writing said image data to said first and second buffer memories; and

a compression unit for compressing said image data alternatingly read from said first and second buffer memories,
wherein inputs of said first and second buffer memories are connected, separate from said bus, only to said image processing unit to receive only said image data from said image processing unit, and outputs of said first and second buffer memories are connected, separate from said bus only to said compression unit, to output said image data only to said compression unit, and said compression unit is connected to said bus and outputs compressed image data directly to said storage unit via said bus.

16. (Previously Presented) The image processing apparatus according to claim 15, comprising:

a first switching unit connected between said image processing unit and said first and second buffer memories; and
a second switching unit connected between said compression unit and said first and second buffer memories.

17-19. (Canceled)

20. (Previously Presented) The image processing apparatus according to claim 15, comprising:

said image processing part being connected to store data in and retrieve data from said storage unit.

21. (Previously Presented) The image processing apparatus according to claim 15, wherein said image processing part comprises:

a first processing unit for performing a first processing on said captured data and for storing first processed data in said storage unit; and

a second processing unit for performing a second processing on said first processed data obtained from said storage unit and outputting second processed data to said buffer memory.

22. (Previously Presented) The image processing apparatus according to claim 1, wherein said image processing part comprises:

a first processing unit for performing a first processing on said captured data and for storing first processed data in said storage unit; and

a second processing unit for performing a second processing on said first processed data obtained from said storage unit and outputting said image data to said buffer memory.

23. (Previously Presented) The image processing apparatus according to claim 1, comprising:

said image processing part connected to store data in and retrieve data from said storage unit.

24. (Previously Presented) The image processing apparatus according to claim 1, comprising:

said compression unit compressing said image data read from said buffer memory and storing compressed image data in said storage unit.

25. (Previously Presented) The image processing apparatus of claim 1, wherein said buffer memory comprises two line buffers each having a length not less than a length of image data processed by said image processing unit at a single time.

26. (Previously Presented) The image processing apparatus of claim 1, wherein:
said image processing unit comprises a line memory for storing said captured data;
and

 said buffer memory comprises two line buffers each having a length not less than a length of image data processed by said image processing unit at a single time and not more than a length of said line memory.

27. (Currently Amended) An image processing apparatus for performing image processing on captured data of an image of a desired subject, comprising:
 an image processing part; and
 a storage unit provided outside said image processing part and connected to said image processing part by a bus,
 said image processing part including:
 an image processing unit for performing a predetermined process on said captured data to obtain image data;
 a line memory integrated into said image processing unit;
 a compression unit for compressing said image data; and
 a buffer memory connected between said image processing unit and said compression unit; and
 a DMA controller controlling transfer of compressed image data between the compression unit and the storage unit,

wherein an input of said buffer memory is connected, separate from said bus, only to said image processing unit, to receive only said image data from said image processing unit, and an output of said buffer memory is connected, separate from said bus only to said compression unit, to output said image data only to said compression unit, compressed image data is output directly from said compression unit via said bus to said storage unit, and said compression unit is connected to said bus.